

**Remarks/Arguments**

Claims 1-20 are pending in the application. Claims 1-11 were previously withdrawn from consideration, and claims 12-20 stand rejected under 35 U.S.C. § 103(a), allegedly for being rendered obvious by a single reference, Mikurak's U.S. Pat. No. 6,606,744 (Mikurak). Applicant traverses and respectfully requests that the rejections be withdrawn.

Mikurak fails to teach or suggest all elements of the claims, including (but not limited to) the Interchange Party Computer System ("IPCS") described in the application. The Office action does not explain how modifying Mikurak as described would be desirable, and modifying Mikurak as described would change its principle of operation. At most, it appears that the Office action merely alleges that a person of ordinary skill in the art at the time Applicant filed this application would have found it obvious to try modifying Mikurak's system by adding extra options to it. Thus, the Office action fails to establish a *prima facie* case that Mikurak alone renders obvious claims 12-20.

***The Focus on Claim 19***

The Office action focuses on independent claim 19, and the rejections of other claims relate back to claim 19, which is characterized as the most complex claim (see paragraph 4.2 on page 5 of the Office action). For example, the rejection of claim 12 states that it is rejected for similar rationales and references set forth for claim 19. Applicant believes that traversing the obviousness rejection of claim 19 will entirely—or at least very substantially—traverse the obviousness rejections of claim 20 (which depends directly from claim 19) and claims 12-18.

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Therefore, the following remarks are directed to claim 19, but can be extended to claims 12-18 under similar rationales.

*Mikurak Describes How to Collaboratively Manage Installation of Communication Networks*

Mikurak describes a "collaborative installation management in a network-based supply chain environment" (see, e.g., column 1, lines 8-10; column 2, lines 53-55) directed toward problems in telecommunications technologies and equipment; Mikurak's entire "Background of the Invention" focuses solely on the installation and management of telecommunications equipment and the problems inherent in replacing or improving an outdated private branch exchange (PBX) or central office telecommunications system (column 1, line 13 to column 2, line 50). A person of ordinary skill in the art attempting to arrive at Applicant's invention—a system allowing consumers to better evaluate service plans and manage service accounts over existing telecommunications networks—would not look to descriptions of how to build, install, manage, or improve telecommunications networks for inspiration. As an analogy, if applicant's invention was a system and method to help commuters better identify and manage travel options during rush hour traffic in an urban area, then Mikurak would be a description of how to build, improve, or manage construction of mass transit road and highway systems.

The Mikurak invention summary describes (in its entirety):

A system, method and article of manufacture are provided for collaborative installation management in a network-based supply chain environment. According to an embodiment of the invention, telephone calls, data and other multimedia information are routed through a network system which includes transfer of information across the internet utilizing telephony routing information and internet protocol address information. The system includes integrated Internet Protocol (IP) telephony services allowing a user of a web application to communicate in an audio fashion in-band without having to pick up another telephone. Users can click a button and go to a call center through the network using IP telephony. The system invokes an IP telephony session simultaneously with the data session, and uses an active directory lookup whenever a user uses the system. Users include service providers and manufacturers utilizing the network-based supply chain environment.

Column 2, line 53 to column 3, line 3. In short, Mikurak describes how service providers and manufacturers—not consumers—can use a voice over internet protocol (VOIP) telephony system in combination with web applications to collaboratively manage "installation management." The described "installation management" solely involves matching service

provider information with manufacturer offerings to manage installations of telecommunications networks, such as a Synchronous Optical Network (SONET). Mikurak, column 18, line 1 to column 21, line 40; see esp. column 18 lines 39-47. Thus, Mikurak focuses on the business-based infrastructure underlying commercial transactions.

Consumers are mentioned in Mikurak, but only in the context of how businesses (service providers and manufacturers) can collaboratively manage telecommunications networks. The word "consumer" first appears in the specification in a description of the figures: "FIG. 142 is a block diagram of a bill pay system wherein consumers pay bills using a bill pay service bureau which has the consumers as customers" (Mikurak, column 9, lines 17-19). Consumers are not mentioned in the background or summary of the invention.

The next five occasions where "consumer" or "consumers" are mentioned in Mikurak are scattered over the next 71 columns of text:

- FIG. 143 is a block diagram of a bill pay system where billers initiate automatic debits from **consumers'** bank accounts (Mikurak, column 9, lines 20-22);
- The utility central computer includes a T-based communication digital backbone network which communicates with a distribution network through gateways typically located within a power substation. The backbone network consolidates traffic from different substations and routes the traffic to the utility host computer, thus providing access to every user on the system. The host computer is able to forecast trends and predict when demand will exceed supply, thus allowing corrective action to be taken. **The computer can also generate reports for utility management and consumers showing usage and savings through demand management** (Mikurak, column 23, lines 21-32; emphasis added);
- While there are components in the NGN that ensure interoperability between "NGN" and PSTN, there are also a huge new set of new services that are built entirely on the NGN components which is provide feature rich multimedia (voice, video, data) based communication services as well as enabling many E-Commerce services enabled by IP technologies. These components (described later in detail) include directories, policies, user authentication, registration, and encryption. These components enable services like integrated messaging, multimedia conversations, on-demand multi-point conference, enhanced security & authentication, various classes of media transport services, numerous automations in electronic internet commerce activities e.g. banking, shopping, customer care, education, etc. As the NGN matures third party value added service providers will develop IP based services that will combine applications such as electronic commerce (procurement, warehousing, distribution and fulfillment) as well as online banking to **present the consumer with an integrated boundless shopping experience** (Mikurak, column 38, lines 19-38; emphasis added);

- In addition, one embodiment of the present invention makes the Internet a viable alternative to telephone calls as a tool for providing **consumer product support** (Mikurak, column 77, lines 33-35); and
- Finally, in a managing step 5208, the network is managed based on the future behavior of the network. Data mining involves the development of tools that analyze large databases to extract useful information from them. As an application of data mining, customer purchasing patterns may be derived from a large customer transaction database by analyzing its transaction records. Such purchasing habits can provide invaluable marketing information. For example, retailers can create more effective store displays and more effective control inventory than otherwise would be possible if **they know consumer purchase patterns**. As a further example, catalog companies can conduct more effective mass mailings if they know that, given that a consumer has purchased a first item, the same consumer can be expected, with some degree of probability, to purchase a particular second item within a defined time period after the first purchase (Mikurak, column 80, line 63 to column 81, line 12; emphasis added).

All of the above selections describe consumers in the overall context of Mikurak—managing installation of telecommunications networks by matching service provider information with manufacturer offerings. The descriptions relate to how service providers and manufacturers can **better install telecommunications networks using knowledge about consumer behavior**. However, none of these selections teaches or suggests applicant's invention for **improving consumers' abilities to better select and manage service plans across existing telecommunications networks**.

Mikurak also mentions consumers while describing certain features of one embodiment of collaborative installation management in a network-based supply chain, namely commerce-related web application services. Mikurak, column 91, line 14 to column 125, line 24, and FIG. 54. However, even these descriptions are made in the overall context of Mikurak—managing installation of telecommunications networks by matching service provider information with manufacturer offerings. Thus, Mikurak describes collaborative relationships among manufacturers and service providers in creating telecommunications networks, while Applicant's invention offers new ways for consumers to relate to service providers across already existing telecommunications networks.

*Legal Requirements of an Obviousness Rejection*

In making an obviousness rejection, M.P.E.P. § 706.02(j) requires that the Office action should set forth:

- the relevant teachings of the prior art relied upon;
- the difference or differences in the rejected claims over the applied reference;
- the proposed modification of the applied reference necessary to arrive at the claimed subject matter; and
- an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

A *prima facie* case of obviousness requires three basic criteria:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. M.P.E.P. § 706.02(j), citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Furthermore, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

*Mikurak Fails to Teach All Claimed Elements of Applicant's Invention*

The Office action includes the following statement:

In p.008 of the fax communication (3/09/2005), the applicant argues Mikurak does not describe "network communication with a plurality of consumers...". The examiner submits that Mikurak teaches a similar configuration. Fig.2 of Mikurak presents a model of business-to-consumer with M1, M2 ...M4 are consumers, and SP1, SP2...SP4 are businesses (service providers).

However, Mikurak unambiguously states:

Displayed under each column in FIG. 4 are rectangular boxes that each have either a "SP" or a "M" displayed inside them. The "SP" boxes indicate that a particular

benefit for that particular component may be attributed to a service provider. **The "M" boxes indicate that a particular benefit for that particular component may be attributed to a manufacturer** (Mikurak, column 16, lines 54-60; emphasis added).

Mikurak also unambiguously states:

FIG. 2 illustrates an illustrative embodiment of a system 200 for combined industry supply management **between one or multiple manufacturers 202** and one or many service providers 204 and/or vendors and/or resellers, etc. For clarity, the majority of the following discussion will discuss service providers, but it should be kept in mind that the present invention will operate equally well with vendors, resellers, etc.

Therefore, Mikurak clearly states that M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub>, and M<sub>4</sub> abbreviations of FIG. 2 (identified by ref. no. 202) specify manufacturers, not consumers, that relate to service providers through various components of an e-supply chain enterprise within an e-commerce context.

In the previous response, Applicant stated:

Claim 19 specifies an interchange party computer system (IPCS) having several elements, including "providing means for the IPCS to have network communication with a plurality of consumer computer systems." The Examiner alleged that FIG. 2 of Mikurak discloses this feature. **However, nothing in FIG. 2 describes network communications with consumer computer systems as described in the present application** (emphasis added).

In response, the Office action argues:

On page 007 of that fax communication, para. 3, the applicant argues "...nothing in Fig. 2 describes network communications with consumer computer systems as described ...". The examiner respectfully submits that Fig. 2 of Mikurak represents a network communication with consumer computer systems as described in a first limitation of claim 19, i.e., blocks M1, M2, ...M4 represent different manufacturer computers, block 206 represents a middle-man "E-Commerce Market Space", and blocks SP1, SP2, ...SP4 represent different service providers; blocks 202, 206, and 204 are different entities that talk together in this network communicate environment for "one-stop shopping" configuration of Mikurak.

Applicant's representative respectfully disagrees with this characterization of FIG. 2.

The above-mentioned element of claim 19 has three components: (1) the IPCS; (2) a plurality of consumer computer systems; and (3) means for the IPCS to have

network connection with that plurality of consumer computer systems. In order for Mikurak to render obvious claim 19, Mikurak would have to teach or suggest all three components of this claim element. The Office action relies on Mikurak FIG. 2 in asserting that it teaches or suggests these three components, but Mikurak FIG. 2 fails to do so. At the very least, Mikurak fails to teach Applicant's IPCS.

Mikurak specifically describes FIG. 2 as an illustration of "an embodiment of a system for combined industry supply management between one or multiple manufacturers and one or many service providers and/or vendors and/or resellers." Mikurak, column 3, lines 12-15. **This description does not—in any way—relate to Applicant's IPCS.** The IPCS

[A]llows consumers to select from a variety of different services from a variety of different service providers. It is designed to give the consumer information so that they can make an informed choice. It is also designed to make the selection and transfer process easy and without any disruption in service. In this regard, the present invention provides user interfaces that streamline the selection of service providers and the management of service accounts. Application, page 6 line 17, to page 7, line 1.

FIG. 2 describes relationships among service providers (SP<sub>1</sub>, SP<sub>2</sub>, SP<sub>3</sub>, and SP<sub>4</sub>) and manufacturers (M<sub>1</sub>, M<sub>2</sub>, M<sub>3</sub>, and M<sub>4</sub>) via AC's e-Supply Chain Enterprise within an e-commerce market space. **FIG. 2 does not teach—or even suggest—relationships among service providers and consumers via Applicant's IPCS.**

The "E-commerce Market Space" of Mikurak's FIG. 2 illustrates an "e-supply chain enterprise" having aspects of a business-to-business (B2B) network—installation management, demand and supply planning, order management, network asset management, etc. The e-commerce market space of FIG. 2 is described at Mikurak, column 15, line 42 to column 16, line 15 (emphasis added):

FIG. 2 illustrates an illustrative embodiment of a system 200 for combined industry supply management between one or multiple manufacturers 202 and one or many service providers 204 and/or vendors and/or resellers, etc. For clarity, the majority of the following discussion will discuss service providers, but it should be kept in mind that the present invention will operate equally well with vendors, resellers, etc.

In more detail, the present invention manages the supply chain between the manufacturer(s) and service provider(s). The industry supply management is centralized in an eCommerce Market Space 206, which includes components that manage end-to-end supply chain information such as demand planning, order fulfillment, scheduling, inventory, etc. In embodiments of the present invention in which multiple manufacturers and service providers participate, some of the benefits of the present invention include: economies of scale are enabled, rationalization of procurement and inventory, rationalization of distribution and logistics facilities, and facilitation of the development of an industry-wide standard. More benefits will be set forth below in the discussion of FIG. 4.

Preferably, the group of manufacturers of such a system each has a common logistics profile and limitations. The manufacturers may focus on production core competence and would also be responsible for strategic and tactical optimization of network assets.

Also preferably, the group of service providers have common network profiles. The service providers may focus on customers, new businesses and channels, etc. Further, under the system of the present invention, the service providers would be allowed to migrate from operations focus to strategic technology and market management.

The components may include some or all of an installation management component 208, a demand and supply component 210, an order management component 212, a network asset management component 214, a maintenance and service component 216, a procurement and recovered inventory component 218, and/or a distribution and logistics component 220.

Applicant's IPCS is not mentioned anywhere in FIG. 2 or the relevant descriptive text.

Not even the word "consumer" is mentioned anywhere in FIG. 2 or the relevant descriptive text. Therefore, FIG. 2 can disclose the above-mentioned element of claim 19 ("providing means for the IPCS to have network communication with a plurality of consumer computer systems") only if the term "e-commerce market space" teaches or suggests that element of claim 19. Applicant submits that it does not do so.

Since Mikurak does not teach or suggest the IPCS, then Mikurak cannot teach or suggest providing means for network communication between the IPCS and a plurality of consumer computer systems. **For this reason alone, Mikurak cannot render obvious claim 19.**

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The term "e-commerce" has many different definitions, as evidenced by the results of an Internet search conducted using the Google® search tool (results enclosed as Appendix A). Essentially, e-commerce:

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"consists primarily of the distributing, buying, selling, marketing, and servicing of products or services over electronic systems such as the Internet and other computer networks. **The information technology industry might see it as an electronic business application aimed at commercial transactions.** It typically uses electronic communications technology such as the Internet, extranets, e-mail, Ebooks, databases, and mobile phones" (<http://en.wikipedia.org/wiki/E-commerce>; emphasis added; printed copy of entire entry included as Appendix B).

Mikurak relates to the information technology industry because it describes collaborative installation management in a network-based supply chain environment. Therefore, it is logical to conclude that one of ordinary skill in the art reading Mikurak would consider "e-commerce" (of FIG. 2) in the context of "an electronic business application aimed at commercial transactions." Such a reading does not suggest a plurality of consumer computer systems. A business application aimed at commercial transactions is a telecommunications infrastructure supporting commercial transactions one-step removed from consumers, thus not even suggesting a plurality of consumer computer systems.

However—even if Mikurak FIG. 2 did happen to vaguely suggest both a plurality of consumer computer systems and means for connecting those computer systems—**Mikurak FIG. 2 still cannot teach, or even remotely suggest, Applicant's IPCS.** Mikurak FIG. 2 does not teach or suggest allowing consumers to select from a variety of different services from a variety of different service providers. Application, page 6, lines 17-19. Mikurak FIG. 2 does not teach or suggest a system designed to give consumers information so that they can make informed choices. Application, page 6, lines 19-20. Mikurak FIG. 2 does not teach or suggest a system designed to make it easier for consumers to easily select service providers and transfer services without any disruption. Application, page 6, lines 20-21. And Mikurak FIG. 2 does not teach or suggest user interfaces that streamline the selection of service providers and the management of service accounts. Application, page 6 line 21, to page 7, line 1.

*The Office Action Cannot Rely on an "Obvious to Try" Rationale for the Obviousness Rejections of Claims 12-20*

The Office action states the rationale for the obviousness rejection as follows:

Mikurak does not name his computer configuration as "Interchange party computer system (IPCS)", and selectively performing several claimed options.

However, Mikurak's configuration MAY perform analogous functions of a selective option that MAY claimed by the applicant's system.

It would have been obvious with one of ordinary skill in the art at the time of invention to implement Mikurak's configuration to perform extra options as an interchange party computer system such as working as an Automatic Services Monitoring Module or as a Data Mining Module because these are claimed as optional functions that MAY or MAY NOT be performed in the claimed system for the benefit of utilizing other necessary functions in a network-based communication system.

The method of claim 19 requires using at least one of the eight modules associated with the IPCS (listed below as (a) through (h)). This use is not discretionary (the IPCS must use at least one module), although some embodiments use at least two modules, or three or more modules, or even all modules.

Mikurak is the only relevant teaching relied upon in the Office action. The Office action states that the only difference between Mikurak's method (for a "collaborative installation management in a network based supply chain environment") and the claimed invention is the addition of claimed options, which Applicant understands to be the program modules associated with the IPCS (see, e.g., claim 19):

(a) a Service Comparison/Selection Module for finding service programs that match consumer profiles to a predetermined degree;

- (b) an Automatic Bill Payment Module for allowing consumers to engage in automated billing transactions;
- (c) an Automated Services Monitoring Module for monitoring service program databases for service programs that match consumer profiles to a predetermined degree and notifying consumers of matching programs;
- (d) an Automated Best Services Selection Module for finding service programs that match consumer profiles to a predetermined degree and automatically enrolling consumers in matching programs;
- (e) a Services Search Module for finding service programs that are offered on Internet websites not directly associated with the IPCS;
- (f) an Incentive Program Module for analyzing consumers' bills and spending habits to determine service programs offered through the IPCS that better match consumers' needs;
- (g) a Data Mining Module for generation of information from data stored in or passed through the IPCS; and
- (h) a Pooling Module for providing a group of consumers benefits for group transactions with a service provider.

Applicant believes that many other differences between claim 19 and Mikurak exist. However, in order to respond to the Office action as briefly and succinctly as possible, Applicant will respond only to this stated difference.

**The mere fact that references can be modified does not render the resulting modification obvious unless the prior art also suggests the desirability of that modification.** See *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Nothing in Mikurak teaches or suggests that it would be desirable to modify its method for manufacturers and service providers to collaboratively manage installation of a telecommunications system by adding any one of the eight consumer-oriented modules described in claim 19. Furthermore, the Office action does not cite any desirability for this modification. The Office action merely (and incorrectly) states: "these are claimed as optional functions that MAY or MAY not be performed in the claimed system for the benefit of utilizing other necessary functions or a network-based communication system." As the Federal Circuit stated in *In re Mills*, the mere

fact that the prior art may (or may not) be modified is not a sufficient basis for a *prima facie* case of obviousness. That modification must be desirable for some reason.

The Office action fails to state why it would be desirable to modify Mikurak's method—for manufacturers and service providers to collaborately manage installation of a telecommunications system—by adding modules that help consumers better select and manage service plans offered by service providers.

Most importantly, if the proposed modification of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. See *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Mikurak's principle of operation is very clearly stated in its summary of the invention (see excerpt and accompanying text at page 3 above). Concisely stated, Mikurak's principle of operation is to provide users of a network-based supply chain environment better ways to manage installations of or upgrades to telecommunications networks. **The "users" of Mikurak are equipment manufacturers and service providers—not consumers of services offered by service providers. Modifying Mikurak to include Applicant's consumer-oriented modules—tools that help consumers better select and manage service plans—would change Mikurak's principle of operation. Therefore, the modifications of Mikurak proposed in the Office action are not sufficient to render the claims *prima facie* obvious.**

#### CONCLUSION

Applicant submits that in view of the foregoing remarks, the application is in condition for allowance, and favorable action is respectfully requested.

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In view of the foregoing reasons for distinguishing over the cited references, Applicant has not raised other possible grounds for traversing the rejections, and therefore nothing herein should be deemed as acquiescence in any rejection or waiver of arguments not expressed

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herein. For example, Applicant has addressed only some requirements necessary for a *prima facie* case of obviousness and does not acquiesce to concluding that other requirements have been met, such as the requirement that the references relied upon teach each and every element of the rejected claims.

Mikurak is a document of almost 300 pages in length, including about 150 pages of text, presenting numerous ideas. Applicant has responded to all claim rejections in the Office action, but has traversed the obviousness rejections on the basis of specific reasoning directed at assertions made in the Office action.

If the Examiner believes the obviousness rejections should be maintained, Applicant respectfully requests the courtesy of an Examiner's Interview with Applicant and Applicant's representatives by telephone before the Examiner issues final rejections in another Office action.

The Commissioner is hereby authorized to charge any fees, including extension fees, or to charge any additional fees or underpayments, or to credit any overpayments, to the Credit Card account referenced on the accompanying Credit Card Payment form (PTO-2038). As an alternative, in case the Credit Card cannot be processed, the Commissioner is hereby authorized to charge any fees, additional fees, or underpayments, or to credit any overpayments, to Deposit Account No. 50-1001.

Respectfully submitted,

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define: e-commerce Search Advanced Search Preferences

## Web

Related phrases: [e-commerce site](#) [e-commerce solution](#) [mobile e-commerce](#) [e-commerce payment systems](#) [e-commerce across australia](#) [amazon e-commerce service](#)

## Definitions of e-commerce on the Web:

- E-commerce (electronic commerce or EC) is the buying and selling of goods and services on the Internet, especially the World Wide Web. In practice, this term and a newer term, e-business, are often used interchangeably. For online retail selling, the term e-tailing is sometimes used.  
[www.primode.com/glossary.html](http://www.primode.com/glossary.html)
- The processing of buying and selling via the Internet.  
[www.merchantseek.com/glossary.htm](http://www.merchantseek.com/glossary.htm)
- E-commerce (electronic commerce) is the buying and selling of goods and services on the Internet, especially the World Wide Web.  
[www.powernet.co.uk/client/general/glossary.shtml](http://www.powernet.co.uk/client/general/glossary.shtml)
- Stands for Electronic Commerce. An E-commerce site is any site that involves the buying and selling of goods and services. Typically requires a shopping cart system and a payment processing system.  
[webhostinorevealed.com/glossary.htm](http://webhostinorevealed.com/glossary.htm)
- Refers to the transaction of goods and services via the Internet, eg ordering a CD or buying and selling stocks.  
[mediacentre.ninemsn.com.au/mediacentre/how\\_to\\_buy/glossary.aspx](http://mediacentre.ninemsn.com.au/mediacentre/how_to_buy/glossary.aspx)
- The transacting of business electronically rather than via paper.  
[www.firstdata.com/abt\\_gloss\\_E.jsp](http://www.firstdata.com/abt_gloss_E.jsp)
- A system used to conduct business transactions of buying and selling goods and services over a computer network.  
[www.carequity.com/mortgage-resources/](http://www.carequity.com/mortgage-resources/)
- The uses of communication technologies to transmit business information and transact business. Taking an order over the telephone is a simple form of EC. Commerce conducted via the Internet is also called EC, but commercial exchanges on the Internet are only one of several advanced forms of EC that use different technologies, integrated applications and business processes to link enterprises. ...  
[www.dis.wa.gov/bortfolio/Definitions.htm](http://www.dis.wa.gov/bortfolio/Definitions.htm)
- The process of selling products or services via the Web on a secured platform.  
[www.eslaone.com.sg/mediakit/onlineadterms.html](http://www.eslaone.com.sg/mediakit/onlineadterms.html)
- business transactions conducted over the Internet.  
[www.grb.uk.com/253.0.html](http://www.grb.uk.com/253.0.html)
- The sale of products such as insurance over the Internet.  
[www.quoteforms.com/glossary/glossary\\_e.htm](http://www.quoteforms.com/glossary/glossary_e.htm)
- e-Commerce is the term for electronic business transactions, commerce or Internet trade. e-Commerce or e-business, therefore, refers to the business transactions between companies (B2B) or between companies and their customers (B2C) that are wholly or partially conducted over the Internet or similar public or private computer networks. ...  
[www.x-solutions.pnet.com/ew/newsevents/glossar](http://www.x-solutions.pnet.com/ew/newsevents/glossar)
- E-commerce (or electronic commerce) is any business transaction whose price or essential terms were negotiated over an online system such as an Internet, Extranet, Electronic Data Interchange network, or electronic mail system. It does not include transactions negotiated via facsimile machine or switched telephone network, or payments made online for transactions whose terms were negotiated offline.  
[help.econ.census.gov/econhelp/glossary/](http://help.econ.census.gov/econhelp/glossary/)
- Refers to the buying and selling of goods and services electronically, usually via the Internet. Wireless e-commerce generally refers to m-commerce. See m-commerce.  
[about.telus.com/investors/glossary.html](http://about.telus.com/investors/glossary.html)
- Using electronic information technologies on the Internet to allow direct selling and automatic processing of purchases between parties.

Appendix A (page 1 of 2)

11/14/2005 3:04 PM

1 of 2

PAGE 17/24 \* RCVD AT 12/16/2005 6:20:27 PM [Eastern Standard Time] \* SVR:USPTO-EFXXRF-6/24 \* DNIS:2738300 \* CSID:5032962172 \* DURATION (mm-ss):08-10

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- The act of conducting business on-line, e-commerce may include buying and selling products with digital cash and via electronic data interchange.  
[www.course.com/careers/glossary/internet.cfm](http://www.course.com/careers/glossary/internet.cfm)
- e-commerce (electronic commerce) is the process of buying, selling and transferring money through the internet.  
[www.bized.ac.uk/educators/16-19/business/marketing/lesson/sup\\_glossary.htm](http://www.bized.ac.uk/educators/16-19/business/marketing/lesson/sup_glossary.htm)
- Describes doing business - primarily buying and selling of goods and services - on the web. Also known as electronic commerce or EC. Thanks to its 24x7 availability, global reach, and interaction and information delivery capabilities, the web is rapidly becoming a multi-billion dollar source of revenue for business across the globe.  
[www.internetworld365.com/Content/Pages/Glossary.aspx](http://www.internetworld365.com/Content/Pages/Glossary.aspx)
- This defines electronic business transactions (Electronic Commerce), on the World Wide Web. E-commerce allows customers to shop on your Web site 24/7 with "real time" processing.  
[www.adult-design-website.com/web\\_dictionary.htm](http://www.adult-design-website.com/web_dictionary.htm)
- Electronic Commerce - the sale and purchase of goods or services over the Internet.  
[www.paymetech.com/ole\\_ole\\_e\\_page.jsp](http://www.paymetech.com/ole_ole_e_page.jsp)
- Electronic Commerce has come to mean many different things to many different people. Originally, the term meant selling things online. The term has evolved to mean conducting business online (which can include customer service functions, sales, marketing, PR, advertising, and more).  
[www.oregoninnovation.org/pressroom/glossary\\_d-f.html](http://www.oregoninnovation.org/pressroom/glossary_d-f.html)
- Electronic Commerce [e-commerce] refers to the conducting of business on the Internet. This includes buying or selling goods and services over the Internet, email Electronic mail, more commonly referred to as email, is an electronic letter or memo that you can send to anyone on the Internet who has a valid email address. email address An email address is a unique Internet destination or location to which you may send electronic mail. ...  
[www.simplenet.com.au/sbc\\_glossary.shtml](http://www.simplenet.com.au/sbc_glossary.shtml)
- the exchange of goods, information products, or services via an electronic medium such as the Internet. Enterprise: A venture characterized by innovation, creativity, dynamism, and risk. An enterprise can consist of one project, or may refer to an entire organization.  
[www.powerhomebiz.com/Glossary/glossary-E.htm](http://www.powerhomebiz.com/Glossary/glossary-E.htm)
- E-commerce means selling products and / or services on the Internet.  
[www.learn-direct-business.co.uk/campaigns/finances05/glossary/](http://www.learn-direct-business.co.uk/campaigns/finances05/glossary/)
- Electronic Commerce is the process of buying and selling products or services, or the movement of funds via electronic means such as web browsers, telephones, mobile phones, PDAs, Etc.  
[www.cylogv.com/library/glossary.html](http://www.cylogv.com/library/glossary.html)
- commerce conducted electronically (as on the Internet)  
[wordnet.princeton.edu/perl/webwn](http://wordnet.princeton.edu/perl/webwn)
- Electronic commerce or e-commerce consists of the buying, selling, marketing, and servicing of products or services over computer networks. The information technology industry might see it as an electronic business application aimed at commercial transactions.  
[en.wikipedia.org/wiki/E-commerce](http://en.wikipedia.org/wiki/E-commerce)

Find definitions of e-commerce in: [Chinese \(Simplified\)](#) [Chinese \(Traditional\)](#) [Dutch](#) [English](#) [French](#) [German](#) [Italian](#) [Portuguese](#) [Russian](#) [Spanish](#) [all languages](#)

define: e-commerce

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Appendix A (page 2 of 2)

11/14/2005 3:04 PM

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## Electronic commerce

From Wikipedia, the free encyclopedia.  
(Redirected from E-commerce)

**Electronic commerce**, **e-commerce** or **ecommerce** consists primarily of the distributing, buying, selling, marketing, and servicing of products or services over electronic systems such as the Internet and other computer networks. The information technology industry might see it as an electronic business application aimed at commercial transactions. It can involve electronic funds transfer, supply chain management, e-marketing, online marketing, online transaction processing, electronic data interchange, automated inventory management systems, and automated data-collection systems. It typically uses electronic communications technology such as the Internet, extranets, e-mail, Ebooks, databases, and mobile phones.

According to Forrester Research (as cited in Kessler, 2003), electronic commerce generated sales worth US \$12.2 billion in 2003.

### Contents

- 1 Historical development
- 2 Key success factors in e-commerce
- 3 E-commerce problems
- 4 Product suitability
- 5 Acceptance of e-commerce
- 6 Suppliers offering services to electronic commerce practitioners
  - 6.1 Financial
  - 6.2 Software
- 7 Entities using electronic commerce
- 8 See also
- 9 External links
- 10 References

### Historical development

The meaning of the term "electronic commerce" has changed over time. Originally, "electronic commerce" meant the facilitation of commercial transactions electronically, usually using technology like Electronic Data Interchange (EDI, introduced in the late 1970s) to send commercial documents like purchase orders or invoices electronically.

Later it came to include activities more precisely termed "Web-commerce" -- the purchase of goods and services over the World Wide Web via secure servers (note HTTPS, a special server protocol which encrypts confidential ordering data for customer protection) with e-shopping carts and with electronic pay services, like credit card payment authorizations.

When the Web first became well-known among the general public in 1994, many journalists and pundits forecast that e-commerce would soon become a major economic sector. However, it took about four years for security protocols like HTTPS to become sufficiently developed and widely deployed (during the browser wars of this period). Subsequently, between 1998 and 2000, a substantial number of businesses in the United States and



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Western Europe developed rudimentary Web sites.

Although a large number of "pure e-commerce" companies disappeared during the dot-com collapse in 2000 and 2001, many "brick-and-mortar" retailers recognized that such companies had identified valuable niche markets and began to add e-commerce capabilities to their Web sites. For example, after the collapse of online grocer Webvan, two traditional supermarket chains, Albertsons and Safeway, both started e-commerce subsidiaries through which consumers could order groceries online.

As of 2005, e-commerce has become well-established in major cities across much of North America, Western Europe, and certain East Asian countries like South Korea. However, e-commerce is still emerging slowly in some industrialized countries like Australia, and is practically nonexistent in many Third World countries.

## Key success factors in e-commerce

Several factors have a role in the success of any e-commerce venture. They may include:

1. Providing value to customers. Vendors can achieve this by offering a product or product-line that attracts potential customers at a competitive price, as in non-electronic commerce.
2. Providing service and performance. Offering a responsive, user-friendly purchasing experience, just like a flesh-and-blood retailer, may go some way to achieving these goals.
3. Providing an attractive website. The tasteful use of colour, graphics, animation, photographs, fonts, and white-space percentage may aid success in this respect.
4. Providing an incentive for customers to buy and to return. Sales promotions to this end can involve coupons, special offers, and discounts. Cross-linked websites and advertising affiliate programs can also help.
5. Providing personal attention. Personalized web sites, purchase suggestions, and personalized special offers may go some of the way to substituting for the face-to-face human interaction found at a traditional point of sale.
6. Providing a sense of community. Chat rooms, discussion boards, soliciting customer input, loyalty schemes and affinity programs can help in this respect.
7. Providing reliability and security. Parallel servers, hardware redundancy, fail-safe technology, information encryption, and firewalls can enhance this requirement.
8. Providing a 360-degree view of the customer relationship, defined as ensuring that all employees, suppliers, and partners have a complete view, and the same view, of the customer. However, customers may not appreciate the big brother experience.
9. Owning the customer's total experience. E-tailers foster this by treating any contacts with a customer as part of a total experience, an experience that becomes synonymous with the brand.
10. Streamlining business processes, possibly through re-engineering and information technologies.
11. Letting customers help themselves. Provision of a self-serve site, easy to use without assistance, can help in this respect.
12. Helping customers do their job of consuming. E-tailers and online shopping directories can provide such help through ample comparative information and good search facilities. Provision of component information and safety-and-health comments may assist e-tailers to define the customers' job.
13. Constructing a commercially sound business model. If this key success factor had appeared in textbooks in 2000, many of the dot.coms might not have gone bust.
14. Engineering an electronic value chain in which one focuses on a "limited" number of core competencies — the opposite of a one-stop shop. (Electronic stores can appear either specialist or generalist if properly programmed.)
15. Operating on or near the cutting edge of technology and staying there as technology changes (but remembering that the fundamentals of commerce remain indifferent to technology).
16. Setting up an organization of sufficient alertness and agility to respond quickly to any changes in the economic, social and physical environment.

Appendix B (page 2 of 6)

11/14/2005 2:50 PM

## E-commerce problems

Even if a provider of E-commerce goods and services rigorously follows these sixteen "key factors" to devise an exemplary e-commerce strategy, problems can still arise. Sources of such problems include:

1. Failure to understand customers, why they buy and how they buy. Even a product with a sound value proposition can fail if producers and retailers do not understand customer habits, expectations, and motivations. E-commerce could potentially mitigate this potential problem with proactive and focused marketing research, just as traditional retailers may do.
2. Failure to consider the competitive situation. One may have the capability to construct a viable book e-tailing business model, but lack the will to compete with Amazon.com.
3. Inability to predict environmental reaction. What will competitors do? Will they introduce competitive brands or competitive web sites. Will they supplement their service offerings? Will they try to sabotage a competitor's site? Will price wars break out? What will the government do? Research into competitors, industries and markets may mitigate some consequences here, just as in non-electronic commerce.
4. Over-estimation of resource competence. Can staff, hardware, software, and processes handle the proposed strategy? Have e-tailers failed to develop employee and management skills? These issues may call for thorough resource planning and employee training.
5. Failure to coordinate. If existing reporting and control relationships do not suffice, one can move towards a flat, accountable, and flexible organizational structure, which may or may not aid coordination.
6. Failure to obtain senior management commitment. This often results in a failure to gain sufficient corporate resources to accomplish a task. It may help to get top management involved right from the start.
7. Failure to obtain employee commitment. If planners do not explain their strategy well to employees, or fail to give employees the whole picture, then training and setting up incentives for workers to embrace the strategy may assist.
8. Under-estimation of time requirements. Setting up an e-commerce venture can take considerable time and money, and failure to understand the timing and sequencing of tasks can lead to significant cost overruns. Basic project planning, critical path, critical chain, or PERT analysis may mitigate such failings. Profitability may have to wait for the achievement of market share.
9. Failure to follow a plan. Poor follow-through after the initial planning, and insufficient tracking of progress against a plan can result in problems. One may mitigate such problems with standard tools: benchmarking, milestones, variance tracking, and penalties and rewards for variances.
10. Becoming the victim of organized crime. Many syndicates have caught on to the potential of the Internet as a new revenue stream. Two main methods are as follows: (1) Using identity theft techniques like phishing to order expensive goods and bill them to some innocent person, then liquidating the goods for quick cash; (2) Extortion by using a network of compromised "zombie" computers to engage in distributed denial of service attacks against the target Web site until it starts paying protection money.

## Product suitability

Certain products/services appear more suitable for online sales; others remain more suitable for offline sales. Many successful purely virtual companies deal with digital products, including information storage, retrieval, and modification, music, movies, education, communication, software, photography, and financial transactions. Examples of this type of company include Google, eBay and PayPal.

Virtual marketers can sell some non-digital products and services successfully. Such products generally have a high value-to-weight ratio, they may involve embarrassing purchases, they may typically go to people in remote locations, and they may have shut-ins as their typical purchasers. Items which can fit through a standard letterbox - such as music CDs, DVDs and books - are particularly suitable for a virtual marketer, and indeed Amazon.com, one of the few enduring dot-com companies, has historically concentrated on this field.

Products such as spare parts, both for consumer items like washing machines and for industrial equipment like

Appendix B (page 3 of 6)

11/14/2005 2:50 PM

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centrifugal pumps, also seem good candidates for selling online. Retailers often need to order spare parts specially, since they typically do not stock them at consumer outlets — in such cases, e-commerce solutions in spares do not compete with retail stores, only with other ordering systems. A factor for success in this niche can consist of providing customers with exact, reliable information about which part number their particular version of a product needs, for example by providing parts lists keyed by serial number.

Purchases of pornography and of other sex-related products and services fulfil the requirements of both virtuality (or if non-virtual, generally high-value) and potential embarrassment; unsurprisingly, provision of such services has become the most profitable segment of e-commerce.

Products unsuitable for e-commerce include products that have a low value-to-weight ratio, products that have a smell, taste, or touch component, products that need trial fittings - most notably clothing - and products where colour integrity appears important. Nonetheless, Tesco.com has had success delivering groceries in the UK, albeit that many of its goods are of a generic quality, and clothing sold through the internet is big business in the U.S.

## Acceptance of e-commerce

Consumers have accepted the e-commerce business model less readily than its proponents originally expected. Even in product categories suitable for e-commerce, electronic shopping has developed only slowly. Several reasons might account for the slow uptake, including:

- Concerns about security. Many people will not use credit cards over the Internet due to concerns about theft and fraud.
- Lack of instant gratification with most e-purchases (non-digital purchases). Much of a consumer's reward for purchasing a product lies in the instant gratification of using and displaying that product. This reward does not exist when one's purchase does not arrive for days or weeks.
- The problem of access to web commerce, particularly for poor households and for developing countries. Low penetration rates of Internet access in some sectors greatly reduces the potential for e-commerce.
- The social aspect of shopping. Some people enjoy talking to sales staff, to other shoppers, or to their cohorts: this social reward side of retail therapy does not exist to the same extent in online shopping.

## Suppliers offering services to electronic commerce practitioners

### Financial

- PayPal
- Yahoo!
- Moneybookers
- Webmoney (Russia)
- PayZip (Singapore)

### Software

- 24SevenOffice
- NetSuite Inc.

## Entities using electronic commerce

- Amazon.com
- eBay
- exostar

Appendix B (page 4 of 6)

11/14/2005 2:50 PM

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■ [rediff.com](http://rediff.com)

## See also

- Bricks and clicks business model
- Business-to-business electronic commerce
- Business-to-consumer electronic commerce
- Disintermediation
- ETrading
- Electronic business
- E-marketing
- Internet Fraud
- Management
- Marketing
- Online auction business model
- Reintermediation
- Secure electronic transaction - a credit card security protocol
- Web traffic

## External links

- General Information
  - CIO's Ebusiness Research Center (<http://www.cio.com/research/ec/>)
  - NetAcademy on Electronic Markets (<http://www.electronicmarkets.org/>)
- Ecommerce News
  - Ecommerce Guide (<http://ecommerce.internet.com/>)
  - Ecommerce Best Practices (B2B) (<http://www.ec-bp.org/>)
  - Ecommerce Times (<http://www.ecommercetimes.com/>)
- Security
  - ECommerce Safety - A Quick Overview (<http://www.quickoverview.com/overviews/ecommerce-safety-howto.html>)
- Consumer Awareness and Education
  - North American Consumer Project on Electronic Commerce (NACPBC) (<http://nacpec.org>)
  - Institute of Certified E-Commerce Consultants (ICECC) (<http://icecc.com>)

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Appendix B (page 5 of 6)

11/14/2005 2:50 PM

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Appendix B (page 6 of 6)

11/14/2005 2:50 PM

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